

sponse options; 4) ease of completing the questionnaire; 5) relevancy of the items; 6) formatting (e.g., design and placement of instructions, font, placement of items on page); and 7) identification of new concepts (e.g., functional areas or activities that patients consider relevant and not represented by existing items). **RESULTS:** Twenty COPD patients were interviewed: 12 (60%) males; mean age = 63.0 ± 11.3 years; 14 (70%) Caucasian; 12 (60%) retired; mean FEV₁ = 1.5 ± 0.5 liter; FEV₁% predicted = 48.4 ± 13.1. Content of the FPI-SF was seen as comprehensive and represented activities participants found important and often difficult to perform. Participants understood the instructions, items, and response options as intended. No new concepts were identified. Two minor formatting changes were suggested to improve clarity. **CONCLUSIONS:** These results, together with its development history and previously tested quantitative properties, suggest the FPI-SF is content valid for use in clinical studies of COPD.

PRS57

PATIENT REPORTED BURDEN OF ASTHMA BRONCHIALE IN THE SLOVAK REPUBLIC

Tomek D¹, Bielik J², Vissnansky M³, Helbich M⁴, Hroncova D⁵

¹Pharmaceutical Faculty at Comenius University, Bratislava, Slovak Republic, ²Trencin University, Trencin, Slovak Republic, ³Slovak Society for Pharmacoeconomics, Bratislava, Slovak Republic, ⁴Caldera Ltd., Banská Štiavnica, Slovak Republic, ⁵Mediforum, Non-commercial Educational Center of GSK, Bratislava, Slovak Republic

OBJECTIVES: Over the past few decades the treatment of asthma bronchiale has experienced huge progress. Hospitalizations and emergency visits almost disappeared and majority of patients with severe asthma are active in work and leisure activities. However asthma still presents significant burden on patient's daily living. Objective of the study was to explore the burden of asthma on everyday life from the patient's perspective. **METHODS:** From May till September 2010, 506 patients were enrolled in a prospective 6 months study in the Slovak Republic with moderate and severe persistent asthma. A total of 461 patients returned valid diaries recording everyday asthma related symptoms and use of treatment over period of 3 months. Clinical and treatment data have been recorded by the physician for the period of 6 months. **RESULTS:** The mean age of patients is 50 yrs with disease duration of 12 years. Majority of patients are women (71%) and with moderate asthma (88%). Most patients are active at work or study (85%) with 11% disabled and only 4% unemployed. 31% patients have ever experienced a negative impact of asthma on their employment opportunities. The impact of asthma on everyday life is still large. According to patient diaries the patients suffer from asthma symptoms (% of days with symptom of all severities/severe symptoms): any of the monitored symptoms (67/19), dyspnoe (46/8), cough (49/10), wheezing (32/6), limitation of daily activities (37/8), sleep disturbance (30/9), limitation of work activities (25/2.5). The need for medical services such as unscheduled visits (0.53/person year) or hospitalizations (0.036/person year) is less frequent. **CONCLUSIONS:** The data demonstrate that asthma is still present in most of patient days including the presence of symptoms and impact on personal and work life of patients. Patient insight is very valuable and should be incorporated more within the routine treatment in order to get asthma under better control.

PRS58

TREATMENT OUTCOMES OF NEW SMEAR POSITIVE PULMONARY TUBERCULOSIS PATIENTS IN NORTH EAST LIBYA

Solliman MM¹, Hassali MA², Shafie AA³, Atif M⁴, Saleem F⁵, Al-Haddad MS⁶, Hadidan M⁷

¹Universiti Sains Malaysia, P.Penang, Malaysia, ²Universiti Sains Malaysia, Minden, Penang, Malaysia, ³Universiti Sains Malaysia (USM), Penang, Penang, Malaysia, ⁴Universiti Sains Malaysia (USM), Pinang, Malaysia, ⁵Universiti Sains Malaysia (USM), Pinang, Malaysia, ⁶Universiti Sains Malaysia, Gelugor, P.Penang, Malaysia, ⁷Alfath Medical Sciences University, Tripoli, Tripoli, Libya

OBJECTIVES: This study was designed to evaluate treatment outcome of pulmonary tuberculosis patients by using WHO/IUATLD classification and investigate factors associated with unsuccessful outcome. **METHODS:** The study was designed as a retrospective evaluation of patients with smear confirmed pulmonary tuberculosis visiting two specialized hospitals in North East Libya. All patients who registered during 2008-2009 were enrolled. Standardized protocol was used to collect the required data. Descriptive analysis was computed for demographic and clinical characteristics. Chi-square test with significance level of 0.05 was used to determine association between variables. Data was analyzed by Statistical Package for the Social Sciences version 16.02. **RESULTS:** Three hundred and twenty seven patients were notified during the study period. Using the WHO/IUATLD criteria, cure and treatment completion rate was 1.2% and 57.5%, respectively. Treatment failure occurred in 7(2.1%) cases. Ninety (27.5%) patients defaulted treatment, 11 (3.4%) died and 26 (8%) transferred out. Nationality, sex, educational level, area of residence and smoking were associated with unsuccessful treatment outcome. **CONCLUSIONS:** Improving clinical and laboratory infrastructure in peripheral areas, educating defaulters about benefits of completing therapy and stratifying foreigners as high risk groups could improve success rate. Measures should be taken to improve professional commitment and expertise of health care professionals.

PRS59

QUALITY OF LIFE IN SEVERE PERSISTENT UNCONTROLLED ASTHMA: PATIENTS AND CAREGIVERS IN THE SPANISH PEDIATRIC POPULATION: A PREX STUDY

Galera J¹, Lahoz R¹, Herráez L¹, Casafont J¹, Plaza A², Vennera M³

¹Novartis Farmacéutica, S.A., Barcelona, Spain, ²Hospital Sant Joan de Déu, Esplugues de Llobregat, Spain, ³Hospital Clínic de Barcelona, Barcelona, Spain

OBJECTIVES: To assess the quality of life (QoL) in patients with severe persistent uncontrolled asthma and their caregivers, in the asthmatic Spanish pediatric population in specialist consultation. **METHODS:** An observational, cross-sectional, multicenter (pneumology and allergy) study was done. Inclusion criteria were:

male and female patients, 6> years old ≤14, diagnosed with severe persistent asthma [controlled and uncontrolled (ratio 5:2), according to physician criteria], with data of clinical history and spirometry in the last 6 months. QoL in pediatric patients and caregivers using PAQLQ and PACQLQ questionnaires, respectively, and diagnostic concordance between physician criteria and GEMA, were determined. **RESULTS:** A total of 207 patients were included, 33.8% with severe persistent uncontrolled asthma and mean age ± SD of 10.4 ± 2.3 vs. 11.5 ± 2.1 years in patients controlled (p = 0.0015). Of all patients, 61.4% were male, BMI were 19.4 ± 3.8 kg/m² and time from diagnosis was 5.5 ± 3.4 years. Uncontrolled patients had a higher number of exacerbations (7.4 ± 5.2 vs. 3.2 ± 2.8, p < 0.0001), emergency room visits number (2.4 ± 3.3 vs 1.0 ± 1.3, p < 0.0001), FVC and FEV₁ percentage <80% (28.4% vs 18.5%, p < 0.0270 and 47.5% vs 28.6%, p < 0.0069, respectively). QoL in uncontrolled patients (114.2 ± 30.2 vs 137.8 ± 25.6) and their caregivers (64.2 ± 17.3 vs 74.7 ± 17.9) was worse compared to controlled patients (p < 0.0001, both). Concordance between physician versus GEMA asthma control evaluation was moderate, showing that 34.3% of patients with poor controlled asthma according to GEMA would be considered controlled according physician criteria (k: 0.4, 95% CI: 0.3-0.6). **CONCLUSIONS:** Uncontrolled asthma patients have worse QoL, affecting their caregivers. One third of physicians underestimate patients with uncontrolled asthma.

PRS60

THE IMPACT OF SEVERE POOR-CONTROLLED ASTHMA ON PATIENTS' QUALITY OF LIFE CONTROL STUDY

Galera J¹, Lahoz R¹, Herráez L¹, Casafont J¹, Vennera M², Picado C²

¹Novartis Farmacéutica, S.A., Barcelona, Spain, ²Hospital Clínic de Barcelona, Barcelona, Spain

OBJECTIVES: Asthma symptoms can lead to physical and social activities limitations, deteriorating the quality of life (QoL) of patients. Given the high percentage of asthmatic uncontrolled patients, it is important to assess how the lack of control affects the QoL. **METHODS:** An observational, cross-sectional and multicenter study with severe persistent asthma patients according to GEMA, in specialist consultation (pneumology and allergy) was done. QoL was assessed using Mini-AQLQ questionnaire (domains: daily activity limitation, symptoms, emotions and environment) according to GEMA and physician criteria, and patients' perception. Anxiety and depression according to GEMA criteria and patient's perception, and hyperventilation were assessed using the Hospital Anxiety and Depression scale and the Nijmegen questionnaire, respectively. **RESULTS:** A total of 343 patients were enrolled, being the mostly women (67.6%). Uncontrolled patients had worse QoL scores according to GEMA, physician criteria and patient perception [4.4 (1.3) versus 6.1 (1.0), 4.2 (1.2) versus 5.7 (1.2), 3.9 (1.1) versus 5.5 (1.2), respectively, p < 0.0001 in all cases]. These patterns were also observed in the different dimensions of QoL assessed (p < 0.0001 in all cases). The anxiety was associated with a poor control asthma according to the GEMA [7.7 (4.4) versus 4.9 (3.1), p = 0.0003] and patient perception [8.4 (4.4) versus 6.1 (3.9), p < 0.0001]. Depression also showed significant association with poor control according to GEMA and patient perception [4 (4.3) versus 2.3 (2.7) and 6.2 (4.1) versus 3.5 (3.9), respectively, p < 0.0001 in both cases]. Similarly, the degree of hyperventilation was higher in uncontrolled patients according to GEMA and patients perception [19.2 (10.0) versus 9.6 (8.5) and 21.9 (9.3) versus 13.5 (9.5), respectively, p < 0.0001 in both cases]. **CONCLUSIONS:** Uncontrolled asthma patients have worse quality of life, showing a greater degree of anxiety, depression and hyperventilation.

PRS61

AGE HAS NO SIGNIFICANT IMPACT ON HEALTH-RELATED QUALITY OF LIFE IN PATIENTS HOSPITALIZED FOR COPD EXACERBATIONS

Antoniou SA¹, Puiu A², Zaharia BG³, Azoicai D⁴

¹University of Medicine and Pharmacy, Iasi, Romania, ²Sf Spiridon University Hospital, Iasi, Romania, ³Sf Ioan Emergency University Hospital, Iasi, Romania, ⁴University of Medicine and Pharmacy, Iasi, Romania

OBJECTIVES: To evaluate the impact of age on health related quality of life in patients hospitalized for COPD exacerbations, given the fact that little is known on this aspect. **METHODS:** Analysis of data from patients with COPD exacerbation admitted in an university hospital between March and November 2008. Elderly patients were defined as having an age of at least 65 years. Lung function, dyspnea level at hospital admission, and health-related quality of life (CCQ, WHO-Five Well-being Index- WHO-5) were among the variables analyzed comparatively in elderly (E) and younger (Y) patients respectively. **RESULTS:** Included in the analysis were 72 patients, 42 (58.3%) were ex smokers, and there were 45 E patients and 27 Y patients. Elderly patients had more severe dyspnea at admission, more impaired lung function during hospitalization, and required longer hospitalizations. E patients had a more impaired health-related quality of life at admission as compared to Y patients but this was not significantly altered (at admission WHO-5 score 19.28 E versus 22.81 Y, p = 0.49; CCQ symptoms score 3.64 for E and 3.26 for Y, p = 0.23; CCQ functional score 3.63 for E and 3.25 for Y, p = 0.27, CCQ mental score 3.75 for E and 3.40 for Y, p = 0.4, CCQ total score 3.66 for E and 3.30 for Y, p = 0.19). Health-related quality of life at discharge was found to be slightly and non significantly impaired in E patients as compared to Y patients. **CONCLUSIONS:** This analysis demonstrated that elderly patients hospitalised for a COPD exacerbation had a more impaired health-related quality of life even if no statistically significant differences were detected.

PRS62

COMPARISON OF GENERIC AND DISEASE SPECIFIC QUALITY OF LIFE MEASURES IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Agh T, Inotai A, Meszaros A
Semmelweis University, Budapest, Hungary

OBJECTIVES: Chronic obstructive pulmonary disease (COPD) has a great impact on patient's health-related quality of life (HRQoL). The aims of this study were: 1) to assess the generic and disease specific HRQoL of COPD patients, and 2) to evaluate the influence of age and lung function on the patient's HRQoL. **METHODS:** In this observational, cross-sectional study the following information was obtained: age, lung function (post-bronchodilator forced expiratory volume in one second [FEV₁]) and HRQoL (generic: EuroQol five-dimension questionnaire [EQ-5D], disease specific: St. George's Respiratory Questionnaire [SGRQ]). Multiple linear regression model was applied to analyze the effect of age and FEV₁ on the HRQoL. **RESULTS:** Data collected from 170 patients (mean age 63.8 years, 41.8% male) were analyzed. The mean EQ-5D score was 0.55 (SD=0.21) and the mean SGRQ total score was 56.22% (SD=16.19). The multiple linear regression model was successfully applied to describe the effect of age and FEV₁ on the patient's HRQoL measured by either EQ-5D (R²=0.47) or SGRQ (R²=0.64). Both generic and disease-specific HRQoL were related with age and lung function (p<0.005). **CONCLUSIONS:** SGRQ and EQ-5D appear to be reliable and valid for the assessment of HRQoL in COPD patients and may be used as a non-invasive patient-centered monitoring system as a guide for the management of COPD. Due to the simplicity of EQ-5D, the use of this instrument can be recommended within routine clinical practice.

PRS63

FACILITATORS AND BARRIERS ASSOCIATED WITH THE USE OF PHARMACOLOGICAL – BEHAVIORAL COMBINATION THERAPY TO SMOKING CESSATION

Uttiyoung R¹, Layton MR²

¹Chiang Mai Drug Dependent Treatment Center, Chiang Mai, Thailand, ²Khon Kaen University, Khon Kaen, Khon Kaen, Thailand

OBJECTIVES: We aimed to explore patients' perceived positive and negative factors associated with the use of pharmacological-behavioral combination therapy to smoking cessation. **METHODS:** Each patient who visited a drug dependent treatment center was assessed using structured clinical interviews and the Fagerström Test for Nicotine Dependence (FTND). In-depth interviews were conducted with patients who agreed to participate in the study. These patients were treated with behavioral therapy combined with bupropion or nicotine gum and followed up for three consecutive months. The interview responses were recorded, transcribed and organized thematically based on emerging codes using an inductive analysis. **RESULTS:** Seventeen key informants participated in this study and the mean age was 38.2 years. Their FTND score varied from 3.0-5.0 and the number of cigarettes smoked was 3-40 per day. Among these patients 11.8% were able to quit smoking within 1 month, 29.4% within 2 months, 29.4% within 3 months, and 29.4% could not quit smoking in any period of the study. Supportive factors to smoking cessation included supports from family and colleagues, poorer health, role model for acquaintances, household cost saving, practical advice from encouraging physicians, fear of social blame, smoking-free policy at workplace, and the patients' proactive strategies to avoid smoking temptation. Nevertheless, some barriers to smoking cessation were lacking in initiative and readiness to quit smoking; lacking of family support; in compliance to pharmacological-behavioral therapy; gaining weight; triggers such as nicotine withdrawal symptoms, stress, being in a party with smokers; using tobacco as a substitute of other substance; and inconvenient service time and facility at the treatment center. **CONCLUSIONS:** This study provides a framework of interrelated social factors associated with the use of pharmacological-behavioral combination therapy to smoking cessation. There is a need for developing tobacco dependence treatment programs and enabling factors tailored to meet the needs of patients.

PRS64

EXPLORING THE REASONS SMOKERS DROPPED OUT AFTER ENROLLING AT THE QUIT SMOKING CLINIC (QSC) IN MALAYSIA

Lee ML, Hassali MA, Shafie AA
Universiti Sains Malaysia, Penang, Malaysia

OBJECTIVES: Most studies assumed defaulters to be similar to smokers in smoking cessation programmes. Thus, the objective of this qualitative study was to explore perceptions held by QSC defaulters towards QSC service provision. This study also examined the smoking and smoking cessation beliefs among the defaulters. **METHODS:** Drawing from the patients' register at two different QSC settings; one being managed by a team of physicians, medical assistants and nurses while another is managed by the pharmacists, 14 current adult smokers were interviewed face-to-face, from May 2010 to March 2011. Interviews were audio-recorded and transcribed verbatim. The data were analyzed using thematic analysis to generate codes, categories and subsequently themes. **RESULTS:** This heterogeneous subgroup of smokers revealed shared ambivalence towards smoking and smoking cessation, indicating the underlying unreadiness to quit smoking and low self-efficacy. The dynamic interaction between components of the QSC such as the degree of relationship established between the health care providers and the efficacy and availability of smoking cessation aids (SCA) were being perceived as extrinsic motivational cues to enable these smokers to quit smoking. Overall these smokers described the barriers encountered mirrored the unmet expectation; comprising of the lack of expected skills and poor attitudes in the health care providers and the perceived unavailability and ineffective formal smoking cessation aids provided at the QSC. **CONCLUSIONS:** It is necessary to optimize the interplay of extrinsic motivational cues (health care provider and SCA's factors) in order to steer these smokers to quit smoking using the QSC approach. This study serves to underline the need to address a tailored stepped-care approach in these smokers in relation to gender, socio-economic status and nicotine dependence level, encompassing a wider stance in the tobacco control policy.

Respiratory-Related Disorders – Health Care Use & Policy Studies

PRS65

THE EFFECT OF OMALIZUMAB ON UNSCHEDULED HEALTHCARE RESOURCE UTILISATION AND HEALTH-RELATED QUALITY OF LIFE IN UK CLINICAL PRACTICE: THE APEX STUDY

Barnes N¹, Radwan A², Percival F³

¹Barts and The London NHS Trust, London, UK, ²Novartis Pharmaceuticals UK Limited, Surrey, UK, ³pH Associates, Marlow, UK

OBJECTIVES: The efficacy and safety of omalizumab for the treatment of severe persistent allergic asthma have been demonstrated in randomised controlled clinical trials. However, there are limited 'real world' data on its effects on healthcare resource utilisation or health-related quality of life (QoL) in UK clinical practice. **METHODS:** A 10 centre retrospective observational study (APEX) compared 12 months pre- versus 12 months post-omalizumab initiation in patients aged ≥12 years with severe persistent allergic asthma. All patients received ≥1 dose of omalizumab. Hospital records were reviewed to obtain data on hospital resource use and routinely used QoL measures e.g. Asthma Quality of Life Questionnaire (AQLQ) at baseline (pre-omalizumab), 16 weeks and up to 12 months following omalizumab initiation. **RESULTS:** Mean Accident and Emergency department attendances fell by 70% from 1.52 per patient in the 12 months pre-omalizumab to 0.46 in the 12 months post-omalizumab (p<0.001). Similarly, mean in-patient hospital admissions fell by 61% from 1.30 to 0.51 (p<0.001) and mean in-patient bed days fell by 70% from 9.10 to 2.74 (p<0.001) per patient. In the subgroup of patients hospitalised for asthma in the 12-months pre-omalizumab (n=81), mean in-patient hospital admissions fell by 70% from 2.19 to 0.65 (p<0.001) and mean in-patient bed days fell by 74% from 14.86 to 3.83 (p<0.001) per patient. Other resource use, such as outpatient attendances (excluding visits made solely for omalizumab administration), nurse appointments and telephone consultations remained unchanged following omalizumab initiation. QoL data were not available for all patients at every time point. However, where data were available, mean AQLQ scores increased from 3.09 at baseline to 5.01 at 16 weeks (n=90) and to 5.22 at 12 months (n=29). **CONCLUSIONS:** Treatment with omalizumab is associated with a significant reduction in unplanned hospital resource utilisation and significant improvements in patients' QoL.

PRS66

DRUG USE REVIEW IN PATIENTS WITH BRONCHIAL ASTHMA - THE INTRODUCTION OF THE OPTIMIZATION PROGRAM OF THERAPY

Oskina E

Samara Medical University, Samara, Russia

OBJECTIVES: Drug use review for the treatment of asthma and assess the impact of the administrative program to optimize the use of drugs in the Samara region in 2008-2010. **METHODS:** In 2008 retrospective analysis of drug use in ambulatory practice based on a database of 90,196 paid prescriptions patients with bronchial asthma in the Samara region. An analysis of 155 history of 15 clinics. Data on the consumption of drugs were presented with the ATC/DDD methodology in the form of DDD/1000 inhabitants day. After the analysis has developed a program that includes training, administrative controls over the discharge of drugs, medications, and form a formal application form. In 2009, the evaluation of the implementation of the optimization program by re-examining the consumption of drugs (105 318 prescriptions paid for) and analysis of hospital records (143 history) **RESULTS:** Use of basic products in 2008 amounted to 380, including inhaled corticosteroids (ICS) was 286, medications to relieve symptoms - 485 DDD 1000 inhabitants/day. In 2009, use of basic drugs increased by 1.6 times to 621, the consumption of inhaled corticosteroids has increased by 1.7 times to 502 DDD per 1000 inhabitants/day, (p<0.001). In 2009 compared to 2008 the number of patients with nocturnal symptoms dropped from 52% to 37%; of hospitalization from 47% to 25%; ambulance call from 40% to 23%, respectively (p<0.001). **CONCLUSIONS:** The introduction of a rational program for the use of drugs with the use of administrative controls in 2009 allowed the drug to optimize the consumption of patients with asthma to improve asthma control in clinical practice and to reduce the costs of the use of medical resources.

PRS67

CONSUMPTION PATTERNS AND IN VITRO RESISTANCE OF S. PNEUMONIAE TO FLUOROQUINOLONES

Simoens S¹, Verhaegen J², Van Bleyenbergh P², Peetermans W², Decramer M²

¹K.U. Leuven, Leuven, Belgium, ²University Hospitals Leuven, Leuven, Belgium

OBJECTIVES: This study analyses consumption patterns of fluoroquinolones and documents in vitro resistance of *S. pneumoniae* to fluoroquinolones in ambulatory care in Belgium. **METHODS:** Data on fluoroquinolone consumption were derived from IMS Health. Volume of consumption was expressed in terms of the number of defined daily doses per 1,000 inhabitants per day (DID). Consumption was valued at public prices pertaining to the year or month of consumption. Respiratory blood isolates were taken from adults to test in vitro susceptibility of *S. pneumoniae* to levofloxacin and moxifloxacin. The *S. pneumoniae* strains were isolated in 15 clinical laboratories throughout Belgium. A hundred blood isolates per year were at random selected from 2004 to 2009. Susceptibility and resistance of *S. pneumoniae* was expressed using the Clinical and Laboratory Standards Institute breakpoints. **RESULTS:** Fluoroquinolone consumption increased from 24.1 million € in 1993 to a maximum of 44.4 million € in 2002, and then decreased to 35.0 million € in 2009. The volume of fluoroquinolone consumption has fallen consistently from 3.00 DIDs in 2003 to 2.66 DIDs in 2009. Fluoroquinolones were primarily used to treat urinary tract infections (36% of consumption, volume of 0.95 DIDs) and lower respiratory tract infections (26% of consumption, volume of 0.70 DIDs). The minimum inhibi-